

MINING ON THE COMSTOCK.

A GENERAL VIEW OF THE SITUATION.
PRODUCTIVE MINES—SEARCHING FOR THE NEW
BONANZAS—THE SATRO TUNNEL AND THE LOW
GRADE ORES—MINING AT A DEPTH OF THREE
THOUSAND FEET.

FROM AN OCCASIONAL CORRESPONDENT OF THE TRIBUNE.]

VIRGINIA CITY, Nev., June 22.—The mines of the Comstock lode are the deepest on the American Continent. Three have attained a depth of 3,000 feet, and a number range in depth from 2,500 to 2,800 feet. Although hundreds of millions of dollars in gold and silver have been taken from the mines along the lode, the present yield is comparatively insignificant. Nearly every mining company in the state is now engaged in sinking and drifting in search of new ore deposits.

PRODUCTIVE MINES.

At the north end of the lode the Sierra Nevada and Union Consolidated Companies have ore which came in at a point 2,150 feet below the surface and which is known to extend to the 2,300 level. In the Union Consolidated this deposit of ore is about 45 feet in width on the 2,200 level. On account of certain operations in progress in the Union shaft, through which both the Sierra Nevada and Union Consolidated names will be worked, no ore can at present be extracted by either company.

The old "Bonanza mines"—the California and Consolidated Virginia—are still extracting and milling ore. This comes from the stops on their old upper levels. The Consolidated Virginia Company last week extracted and sent to the mill 1,170 tons of ore, the average assay of which was \$46.25. The same week the California Company mined and shipped to the mills 567 tons of ore of the assay value of \$39.41 per ton.

The Hale and Norcross Company yesterday began hoisting ore. This comes from a deposit about ten feet in width, found some months since on their 2,100 level. The average assay of this ore is \$51.82. At the time it was found nothing more was done with this vein than to run a crosscut through it and ascertain its width. In following the deposit up in the extraction of ore a valuable bonanza is liable to be found. Some of the ore in the vein is as rich as any ever developed on the Comstock. The working of this vein will at least give relief to stockholders by reducing assessments.

The Alta Company, on the southern part of the Comstock, near Devil's Gate, began shipping ore to mills last Friday. This ore was taken out some time ago. It came from the 1,050, 1,100 and 1,750 levels. There is more or less ore on all the levels of the mine from the 1,050 to the 1,950. On the upper levels it is free milling ore, but on the 1,950 level it is base, containing a large percentage of galena, zinc and copper and iron pyrites, yet it is rich in gold and silver, the assays running from \$10 to \$200 per ton. Some experiments are now being made for the reduction of this ore at the Proctor roasting furnace near the Devil's Gate.

At the Quinn mine, which is at the extreme south end of the Comstock, as far as explored they have rich ore from the surface down, but as yet they have no great width of it; though they have only attained a depth of 200 feet. At this depth they are drifting north and south preparatory to crossing and extracting ore. They can at any time take out considerable quantities of good ore at this mine.

FUTURE BONANZAS.

Mining men pay but little attention to what they now have in sight in the way of ore. Their minds are occupied with the bonanzas to come—the bonanzas of the future. There appears to be no regularity as regards the recurrence of the bodies of rich ore known as "bonanzas." Between them are zones of comparatively barren ground, but as yet there is no ascertained law of nature regulating the width of the unproductive belts. They only know that there was such a belt between their first and second line of bonanzas, and that they are now (at most points) in another barren belt, pushing downward in search of their third line of bonanzas. These coming bonanzas are thought to be at no great distance, as there are signs of the beginning of another fertile zone soon at the depth of about 2,800 feet.

At the Belcher mine on the 2,700 level was found a streak of very good black sulphurite ore about three feet in width, which presented the appearance of the top of an ore body. At about the same depth a marked change in the character of the vein was observed in the Yellow Jacket shaft; as the Imperial and Alpha mines the change was seen at the 2,800, and in the Bullion at the 2,450 level. A similar change has been observed further to the northward at a depth of from 2,300 to 2,500 feet. At the latter depth in the Ophir they are drifting and boring with the diamond drill in a quartz formation, which assays from \$5 to \$20 per ton.

SEARCHING FOR THE NEW BONANZAS.

Holding thus glances at the present situation on the Comstock, it will be next in order to take a look at what is being done at the principal points along the lode toward the attainment of a greater depth. Water is found to be a greater hindrance at great depths than either heat or lack of air. It is found that pure air can be had at any depth attainable. The greater the depth of the mine the more powerful is the rush of air at the bottom, when two shafts or other openings reaching to the surface are connected. At the depth of 3,000 feet this rush is so great that it blows off hairs, and is found by the miners unpleasant to face. Volumes of surface air soon cool off the heated rock walls of the drifts of the lower levels.

A means of draining the Sutro Tunnel will be of almost incalculable value. Already the leading mines of the middle part of the lode have derived great benefit from their connection with it. The course of the main Sutro Tunnel is almost directly west to the point where it strikes the east side of the Comstock lode in the ground of the Savage Mining Company, then one branch goes north and another south. Thus the tunnel and its branches form the form of the letter "T." The branches forming the top of the letter. These branches will be extended along the eastern face of the lode to the Sierra Nevada on the north and to the Belcher on the south.

The tunnel strikes the Comstock at a depth of 1,900 feet below the surface, thus obviating the necessity of pumping water to that height, which is no small item, as will be seen when we come to consider the weight of a column of water 1,900 feet high. The Sutro Tunnel and its branches give us a new surface, so to speak, 1,600 feet below the real surface of the earth, from which to take a new departure in the business of draining our mines. None of the mines now connected with it need pump water higher than their 1,600 level.

The north branch has already connected with the Gould and Curry, Best and Belcher, Consolidated Virginia and California; the main tunnel taps the Savage, and through the Savage the Hale and Norcross ground. The south branch has connected with the John shaft, and is now passing through the Bullion toward the Yellow Jacket shaft, which it will reach at no distant day.

A drift from the Chollar-Norcross-Savage shaft connects with the Sutro Tunnel, saving 1,600 feet of pumping, yet with the rush of water coming in from a drift run from the shaft on the 2,400 level into the edge of the vein on the Savage ground, both the pump and balling tanks must be kept in constant motion to handle the water. Without the Sutro Tunnel they would have been drowned out of the 2,400 level in both the Savage and Hale and Norcross, but with it they will be able to keep down the water until the subterranean reservoirs tapped by the drifts have drained out.

As soon as this flow of water shall cease, the Savage, Hale and Norcross, Chollar and Potosi Companies will be able to run prospecting drifts and thoroughly explore their ground at the depth of 2,400 feet. In the Chollar and Potosi, no mining has yet been done below the 1,900 level.

The Belcher Mining Company have attained a vertical depth of 3,000 feet, at which point they have drifted several hundred feet north and south and have made several attempts, both by means of crooked and angular drifts, to get to the vein. The drifts in the eastward drift, where it is expected will again be out the small vein spoken of above, as they have been on the 2,700 level, but a rush of hot water has always ensued, which put a stop to these operations.

The drift holes are now plugged up with sections of gas pipe surrounded with sand, through which the flow of water is regulated to suit the capacity of the pumps. The temperature of this water is 170

degrees Fahrenheit. Water at this temperature heats up the level that only work strictly necessary is done, and the drifts are being pushed as rapidly as possible to connect with an east drift that is being advanced toward it on the 3,000 level of the Crown Point mine. Once this connection is made, there will be good strong circulation of air in both mines, and prospecting operations may then be resumed.

The grand stand at Monmouth Park was crowded yesterday, and a generous share of its success was occupied by ladies from the Long Branch hotels and cottages. So much beauty of feature, figure and dress met the eye in gazing over the throng as to compel the conviction that New-York and other cities had sent many of their loveliest women to the New-Jersey shore this year, and that a good proportion of these fair representatives of fashionable society took an interest in racing. Though there was not so great a host of spectators present as on some holidays in previous years, the number ran well up in the thousands. They were comforted thousands until the rain came. A brief shower presented any thought of heat, and the racing had enough of the surprising and stirring in it to make the time pass swiftly. Moreover, the management pushed on so fast and was so liberal in the extent and variety of the sport that the afternoon seemed all too short. It was over full of animation and enjoyment. But the rain was unsuited. Everyone thought that it was much needed, but everyone wished that it had not come just then.

As to the actual merit of the racing it will not soon be forgotten. The track was better than on Saturday and the running was swifter. Twice the most experienced turfmen and the general cloud of witnesses were much astonished. Very few thought it possible that Grenada could lose the big prize of the day, the Jersey Derby. But he did lose it, and the victor proved himself a good horse. The only incident in the career of Fern cliff, Grenada's conqueror, which drew notice to him last year, was his running second to Sensation at Jerome Park in the Autumn, and his forcing that magnificent effort to do his best for the first and last time that year. Fern cliff, who was owned by William Astor, was sold at that time was owned by William Astor. When Mr. Astor retired from the turf Fern cliff was sold at auction, and was bought by Babcock & Co. for \$4,900. Many people thought that sum was much above his true value. The result of the Jersey Derby showed that this was an error. Fern cliff's only previous success was in the Wijlers Stakes at Jerome, when the judges declared him the winner, though most of the spectators thought Grenada had beaten him by a head.

The starter prevented the defeat of the favorite in the first race by giving him a decisive lead over the others whose speed made them at all dangerous to him. The second contest was the Jersey Derby, the decision of which has just been mentioned. In the third, the best the favorite could do was to get second place. The fourth was a "walk over." In the fifth a silly little tussle was first at the end and her fortunate backers in the French pools got a return of nearly twenty for one for their investment. The favorite captured the Walter Cup, and the last two races were also taken by horses that stood highest in the opinion of the spectators.

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To the north the deepest vertical shaft on the Comstock, an accident occurred last Friday which resulted in the death of six of the eight men who happened to be at the bottom at the time. The accident was the dumping of a load of stones, picks, etc., down into the shaft into the mine at the 2,000 foot level. Not a warning sound was heard. During the latter part of their course of 1,000 yards the missiles travelled so swiftly that all sound was left behind.

THE NORTH END MINES.

It is toward the mines at the north end of the Comstock, however, that the eyes of all stockholders and mining men on the Pacific Coast are now turned—the Sierra Nevada and Union Consolidated. What they wish to see is the opening up of the Comstock, as far as possible, to the 2,300 level. In the Union Consolidated this deposit of ore is about 45 feet in width on the 2,200 level. On account of certain operations in progress in the Union shaft, through which both the Sierra Nevada and Union Consolidated names will be worked, no ore can at present be extracted by either company.

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